

### **REMARKS**

Applicant appreciates the Examiner's attention to this application. The Office Action objects to the disclosure because of an informality, and objects to FIGs 44A-44D because of inconsistency with the Brief Description of the Drawings. This response amends the specification to overcome those objections, to make the Detailed Description more consistent with the drawings, and to cure some apparent transcription errors between the filed application and the published application.

The Office Action also indicates that claims 15-18 have been withdrawn due to an election/restriction requirement.

This response cancels claims 1-18 and 20-25. This response adds claims 26-43. This response amends claim 19. Claims 19, 26, 31, 35, and 41 are the pending independent claims.

Reconsideration of the present application in view of the enclosed amendments and remarks is respectfully requested.

### **ARGUMENT**

The Office Action includes rejections based on 35 U.S.C. §§ 101, 102(a), and 103(a). To the extent that any of those rejections might be applied to the claims now pending, Applicant respectfully traverses.

#### **35 U.S.C. § 101**

The Office Action rejects claims 1-7 and 19-25 under 35 U.S.C. § 101 as being directed to nonstatutory subject matter. The claim amendments in this response overcome this rejection.

#### **35 U.S.C. § 102(a)**

The Office Action rejects claims 1-7 and 19-25 under 35 U.S.C. § 102(a) as being anticipated by U.S. patent no. 6,038,381 to Michael Munch et al. (hereinafter

"Munch"). To the extent that those rejections might be applied to the pending claims, Applicant respectfully traverses.

Munch pertains to a method for analyzing hardware circuit to identify opportunities to reduce power consumption. For instance, lines 9 through 26 of column 13 describe a process of analyzing hardware components such as registers and multiplexers (muxes) to identify potential opportunities to reduce power consumption.

The present invention, by contrast, pertains to a data structure and related methods and apparatuses for representing relationships between elements of a software system. For instance, some embodiments provide for debugging a software system, based on a graph representing control constraints of the software system.

Accordingly, the pending claims recite many features that are not disclosed by Munch. For example, claim 26 pertains to a data structure comprising conjunctive nodes and disjunctive nodes "that represent characteristics of a software system" and directed edges connecting the conjunctive nodes and the disjunctive nodes. Furthermore, claim 26 recites that the directed edges represent potential influences of input nodes on output nodes, and claim 26 recites various specific behaviors for directed edges. Claims 31 and 35 involve similar features. Munch, however, does not disclose these features.

Claim 19 describes a method of creating a static control graph to facilitate analysis of a software system, with operations that comprise "creating, for each new conjunctive node that generates an output value, a new outgoing edge from the conjunctive node to a corresponding disjunctive node." Claim 41 describes a software tool that involves a similar feature. Munch, however, discloses no such feature.

Accordingly, Munch does not anticipate any of the pending independent claims.

35 U.S.C. § 103(a)

The Office Action rejects claims 8-14 under 35 U.S.C. § 103(a) as being unpatentable over Munch in view of U.S. patent no. 6,134,676 to Gary Alan VanHuben et al. (hereinafter "VanHuben"). To the extent those rejections might be applied to the pending claims, Applicant respectfully traverses.

VanHuben relates to a method for monitoring programmable hardware events. Neither VanHuben nor Munch provides a motivation to combine Munch and VanHuben. Furthermore, VanHuben does not disclose or suggest the features of the pending claims quoted above with regard to Munch.

Consequently, even if Munch and VanHuben were to be combined, the combination would not render the pending independent claims unpatentable. In addition, the dependent claims inherently include the features of their respective parent claims. The dependent claims therefore also patentably define the present invention over Munch and VanHuben.

For reasons including those set forth above, the Office Action fails to make out a *prima facie* case of obviousness for any of the pending claims. In addition, the pending claims recite numerous additional features that are not disclosed or suggested by any of the cited art.

For these and other reasons, all pending claims are allowable.

09/886,459

**CONCLUSION**

In view of the foregoing remarks, claims 19 and 26-43 are all in condition for allowance.

If the Examiner has any questions, the Examiner is invited to contact the undersigned at (512) 732-3927. Early issuance of Notice of Allowance is respectfully requested.

Respectfully submitted,

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